WHAT IS CLAIMED IS:

1   1. A method of managing a computer database, comprising the steps of:
2   importing data into a database residing on a computer system;
3   constructing a schema object to represent a schema of the database; and
4   manipulating the database using an aggregate classifier based on the schema
5   object.

1   2. The method of Claim 1 wherein said constructing step includes the steps of:
2   defining a plurality of classifier definitions corresponding to the schema of the
3   database; and
4   mapping the classifier definitions to columns and tables in the database.

1   3. The method of Claim 2 wherein said defining step defines a "property"
2   classifier which interacts with a single column on a single table in the database.

1   4. The method of Claim 3 wherein said defining step further defines an
2   "object" classifier which contains one or more of the "property" classifiers.

1   5. The method of Claim 3 wherein said defining step defines a "split-object"
2   classifier which makes more than one "object" classifier appear as a single classifier.

1   6. The method of Claim 5 wherein said defining step further defines a "join"
2   classifier which identifies how multiple "object" classifiers database objects are
3   linked in a "split-object" classifier.

1   7. The method of Claim 5 wherein said defining step defines a "mapped
2   property" classifier as a special form of the "split-object" classifier to manage data
3   stored in a table of the database which serves as an index to another database table.

1   8. The method of Claim 2 wherein said defining step defines a parameterized
2   classifier which is a template for classifiers that are instantiated when associated
3   parameters are provided.

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1   9. The method of Claim 1 further comprising the steps of:

2   modifying the schema of the database;

3   constructing a second schema object for the modified database; and

4   manipulating the modified database using the second schema object.

1   10. The method of Claim 9 wherein said step of constructing the second

2 schema object includes the step of re-writing classification definitions stored on the

3 computer system.

1   11. The method of Claim 1 wherein said constructing step includes the step of

2 writing classification definitions stored on the computer system using a field-based

3 language.

1   12. The method of Claim 11 wherein said writing step uses XML.

1   13. The method of Claim 1 wherein said constructing step includes the step of

2 writing classification definitions stored on the computer system.

1   14. The method of Claim 13 wherein said importing step parses an import file

2 to import the data.

1   15. The method of Claim 13 wherein said manipulating step includes the step

2 of an application, residing on the computer system, interacting with a composite

3 object included in the classification definitions.

1   16. The method of Claim 1 wherein said manipulating step includes the step of

2 generating a SQL SELECT query using the query generator.

1   17. The method of Claim 1 wherein said manipulating step includes the step of

2 generating a SQL INSERT query using the query generator.

1   18. The method of Claim 1 wherein said manipulating step includes the step of

2 generating a SQL UPDATE query using the query generator.

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19. The method of Claim 1 wherein said manipulating step includes the step of generating a SQL DELETE query using the query generator.

20. The method of Claim 16 wherein said generating step includes the step of an aggregate classifier interrogating the schema object to determine how different classifiers correspond to columns and tables in the database.

21. A computer system comprising:
    memory means storing a database, and storing program instructions adapted to
        construct a schema object to represent a schema of the database, and
        manipulate the database using an aggregate classifier based on the
        schema object; and
    means for processing the program instructions.

22. The computer system of Claim 21 wherein the program instructions define a plurality of classifiers corresponding to the schema of the database, and map the classifiers to tables in the database.

23. The computer system of Claim 20 wherein the program instructions further define a "property" classifier which interacts with a single column on a single table in the database.

24. The computer system of Claim 23 wherein the program instructions further define an "object" classifier which contains one or more of the "property" classifiers.

25. The computer system of Claim 22 wherein the program instructions further define a "split-object" classifier which makes more than one "object" classifier appear as a single classifier.

26. The computer system of Claim 25 wherein the program instructions further define a "join" classifier which identifies how multiple "object" classifiers are linked in a "split-object" classifier.

27. The computer system of Claim 25 wherein the program instructions further define a "mapped property" classifier as a special form of the "split-object" classifier to manage data stored in a table of the database which serves as an index to another database table.

28. The computer system of Claim 22 wherein the program instructions further define a parameterized classifier which is instantiated when associated parameters are provided.

29. The computer system of Claim 21 wherein the program instructions construct a second schema object when a structure of the database is modified.

30. The computer system of Claim 29 wherein the program instructions construct the second schema object by re-writing classification definitions stored in the memory means.

31. The computer system of Claim 21 wherein the program instructions construct the schema object by writing classification definitions stored on the computer system using a field-based language.

32. The computer system of Claim 21 wherein the program instructions generate a SQL SELECT query using the query generator.

33. The method of Claim 21 wherein said manipulating step includes the step of generating a SQL INSERT query using the query generator.

34. The method of Claim 21 wherein said manipulating step includes the step of generating a SQL UPDATE query using the query generator.

35. The method of Claim 21 wherein said manipulating step includes the step of generating a SQL DELETE query using the query generator.

1   36. The computer system of Claim 32 wherein the program instructions further

2   direct an aggregate classifier to interrogate the schema object to determine how

3   different classifiers correspond to columns and tables in the database.

1   37. The computer system of Claim 21 wherein the program instructions

2   construct a composite object to interact with an application program residing in said

3   memory means.

1   38. A computer program product comprising:

2   a computer-readable storage medium; and

3   program instructions stored on said storage medium for constructing a schema

4   object to represent a schema of the database residing on a computer

5   system, and manipulating the database using an aggregate classifier

6   based on the schema object.

1   39. The computer program product of Claim 38 wherein the program

2   instructions define a plurality of classifiers corresponding to the schema of the

3   database, and map the classifiers to tables in the database.

1   40. The computer program product of Claim 39 wherein the program

2   instructions further define a "property" classifier that interacts with only a single

3   column on a single table in the database.

1   41. The computer program product of Claim 40 wherein the program

2   instructions further define an "object" classifier which contains one or more of the

3   "property" classifiers

1   42. The computer program product of Claim 39 wherein the program

2   instructions further define a "split-object" classifier which makes more than one

3   "object" classifier appear as a single classifier.

1   43. The computer program product of Claim 42 wherein the program

2   instructions further define a "join" classifier which identifies how multiple "object

3   classifiers" are linked in a "split-object" classifier.

1   44. The computer program product of Claim 42 wherein the program

2   instructions further define a "mapped property" classifier as a special form of the

3   "split-object" classifier to manage data stored in a table of the database which serves

4   as an index to another database table.

1   45. The computer program product of Claim 39 wherein the program

2   instructions further define a parameterized classifier which is instantiated when

3   associated parameters are provided.

1   46. The computer program product of Claim 38 wherein the program

2   instructions construct a second schema object when a structure of the database is

3   modified.

1   47. The computer program product of Claim 46 wherein the program

2   instructions construct the second schema object by re-writing classification definitions

3   stored on the computer system.

1   48. The computer program product of Claim 38 wherein the program

2   instructions construct the schema object by writing classification definitions stored on

3   the computer system using a field-based language.

1   49. The computer program product of Claim 38 wherein the program

2   instructions generate a search query using the schema object.

1   50. The computer program product of Claim 49 wherein the program

2   instructions further direct an aggregate classifier to interrogate the schema object to

3   determine locations of different classifiers in the database.

1   51. The computer program product of Claim 38 wherein the program
2 instructions construct a composite object to interact with an application program
3 residing on the computer system.

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